

AMENDMENTS TO THE CLAIMS

Claims 1-24 are pending in the Application, and all have been rejected in the Office action mailed January 8, 2007. Claims 1, 6-8, 11, 14-16, 22 and 23 are amended, and new claims 25-33 are added by this response. Claims 1, 16 and 25 are independent claims. Claims 2-15, 17-24, and 26-33 depend from independent claims 1, 16 and 25, respectively.

The following listing of claims replaces all previous versions, and listings, of claims in the Application.

Listing of Claims:

1. (Currently amended) A network for updating contents of memory comprising an existing code version in an electronic device, the network comprising:

an electronic device including an update environment arranged to first process data representative of shifting of objects within the existing code version to align with locations of corresponding objects in an updated code version, the first process producing a modified existing code version, and to second process the modified existing code version to produce the updated code version;

a distribution environment for transferring data to the electronic device;

a communication link for linking the electronic device and the distribution environment; and

a generation environment for generating the data.

2. (Original) The network according to claim 1 wherein the electronic device constitutes a fault tolerant system for updating the contents of the electronic device.

3 (Original) . The network according to claim 1 wherein the distribution environment is a carrier network.

4. (Original) The network according to claim 1 wherein the distribution environment is a cable TV network.

5. (Original) The network according to claim 1 wherein the update environment comprises:

a download agent for receiving data from the distribution environment; and
an update agent.

6. (Currently amended) The network according to claim 5 wherein the update agent deletes a portion of the contents of memory in the electronic device upon successful receipt of data.

7. (Currently amended) The network according to claim 5 wherein the update agent replaces a portion of the contents of memory in the electronic device upon successful receipt of data.

8. (Currently amended) The network according to claim 5 wherein the update agent adds a portion of the contents of memory in the electronic device upon successful receipt of data.

9. (Original) The network according to claim 1 wherein the communication link is a wireless channel.

10. (Original) The network according to claim 1 wherein the communication link is a wired link.

11. (Currently amended) The network according to claim 1 wherein the data is comprises an update package.

12. (Original) The network according to claim 1 wherein the generation environment transfers the generated data to the distribution environment electronically.

13. (Original) The network according to claim 1 wherein the generation environment transfers the generated data to the distribution environment via removable media.

14. (Currently amended) The network according to claim 1 wherein the contents of memory of the electronic device is firmware.

15. (Currently amended) The network according to claim 1 wherein the contents of memory of the electronic device is software.

16. (Currently amended) A method for updating contents of memory in an electronic device in an updating network having an electronic device, a distribution environment, and a generation environment, the method comprising the steps of:

(a) reading an original image of the contents of memory of the electronic device;

(b) reading a new image of the contents of updated memory for the electronic device;

(c) comparing a location of an ~~the objects of~~ object in the original image of the contents ~~to the objects of~~ and a location of a corresponding object in the new image of the contents, to produce a bubble representative of shift information;

(d) applying ~~[[a]]~~ the bubble to the original image of the contents to align ~~[[an]]~~ the object in the original image of the contents with the corresponding object in the new image of the contents;

(e) repeating (c) and (d) until all objects of the original image of the contents and the new image of the contents have been compared;

(f) saving the original image of the contents with the applied bubbles as a modified original image of the contents;

(g) generating an update package comprising information representing the difference differences between the new image of the contents and the modified original image of the contents, and the applied bubbles;

(h) transferring the update package to the distribution environment;

(i) downloading the update package from the distribution environment to the electronic device; and

(j) updating the original image of the contents in the electronic device to the new image of the contents, using the update package.

17. (Original) The method according to claim 16 wherein a first bubble has a positive size for adding padding bytes into the original image to shift objects forward.

18. (Original) The method according to claim 16 wherein a first bubble has a negative size for removing bytes from the original image to shift objects backward.

19. (Original) The method according to claim 17 wherein a second bubble has a positive size for adding padding bytes into the original image to shift objects forward.

20. (Original) The method according to claim 17 wherein a second bubble has a negative size for removing bytes from the original image to shift objects backward.

21. (Original) The method according to claim 18 wherein a second bubble has a negative size for removing bytes from the original image to shift objects backward.

22. (Currently amended) The method according to claim 16 wherein the contents of memory in the electronic device is firmware.

23. (Currently amended) The method according to claim 16 wherein the contents of memory in the electronic device is software.

24. (Original) The method according to claim 16 wherein the aligned object is a similar portion of binary code between the original image and the new image.

25. (New) A method for updating contents of memory in an electronic device, the method comprising the steps of:

reading an original image of the contents of memory of the electronic device;

reading a new image of the contents of updated memory for the electronic device;

comparing a location of an object in the original image and a location of a corresponding object in the new image, to produce a bubble representative of shift information;

applying the bubble to the original image to align the object in the original image with the corresponding object in the new image;

repeating the comparing and applying until all objects of the original image and the new image have been compared and all bubbles applied, to produce a modified original image;

generating an update package comprising information representing differences between the new image and the modified original image, and the applied bubbles;

transferring the update package to a distribution environment;

downloading the update package from the distribution environment to the electronic device; and

updating the original image in the electronic device to the new image, using the update package.

26. (New) The method according to claim 25 wherein a first bubble has a positive size for adding padding bytes into the original image to shift objects forward.

27. (New) The method according to claim 25 wherein a first bubble has a negative size for removing bytes from the original image to shift objects backward.

28. (New) The method according to claim 26 wherein a second bubble has a positive size for adding padding bytes into the original image to shift objects forward.

29. (New) The method according to claim 26 wherein a second bubble has a negative size for removing bytes from the original image to shift objects backward.

30. (New) The method according to claim 18 wherein a second bubble has a negative size for removing bytes from the original image to shift objects backward.

31. (New) The method according to claim 25 wherein the contents of memory in the electronic device is firmware.

32. (New) The method according to claim 25 wherein the contents of memory in the electronic device is software.

33. (New) The method according to claim 25 wherein the aligned object is a similar portion of binary code between the original image and the new image.